



## RE18

### Variable-D® Dynamic Supercardioid Microphone

- Consistent response with working distance
- Supercardioid pattern for superior rejection
- Dual fluid/butyl-damped shock isolation system
- Undentable Memraflex™ grill screen
- Self-generating dynamic transducer

#### Description and Applications

The Electro-Voice RE18 is a shock-isolated Variable-D® dynamic supercardioid microphone created for the most exacting professional use. The transmission of hand, stand and mechanically generated lectern noises is sharply reduced making the RE18 ideally suited for broadcasting and high-quality sound reinforcement.

The RE18 is much like the RE16, except that it employs a unique internal shock mount and a refined, low-profile blast filter. All of these features are provided in a small package with functional, "easy to hold" styling. The attractive fawn-beige finish is ideal for on-camera use. The RE18 is also at home in the recording studio and in the field with news and sports broadcasters.

The dynamic element and the complex acoustic ports of the Variable-D® RE18 are completely shock isolated from the steel outer case. The unique isolation system utilizes butyl-rubber doughnuts and viscous damping fluid to provide a degree of shock isolation unknown in a microphone housed in such a small outer case (3/4-inch diameter). The butyl rubber not only acts as a spring in the isolation system, but also serves

as a mechanical damper which converts shock energy to heat.

The integral blast filter, smaller than that of the RE16, but of equal effectiveness, provides excellent control of vocal "P-pops." Design refinements include three-stage construction and the use of both standard and high-density Acoustifoam™. The RE18 has a Memraflex™ grille that bounces back to retain its shape.

The RE18's Variable-D® design essentially eliminates proximity effect. All Single-D microphones exhibit bass-boosting proximity effect when the microphone is used within a working distance of about 12 inches. At a 1/4-inch working distance, the RE18's Variable-D® design reduces proximity effect to less than 5 dB at 100 Hz, compared to the Single-D microphone's typical 15 dB at 100 Hz. The result is a consistent sound quality regardless of working distance and a high degree of clarity when used up close.

The RE18's supercardioid polar response provides two nulls at about 150 degrees off-axis (see Figure 1). Typical cardioids have a single null at 180 degrees off axis. The supercardioid pattern provides greater rejection in the microphone's rear hemisphere, advantageous on a boom and in many on-stage applications.

A hum-bucking coil has been added to the RE18 (see Figure 4) which, in addition to its screw-machined steel outer case, ensures rejection of hum when subjected to heavy alternating magnetic fields from stage lighting, power transformers and many other conditions that can occur in remote operation. The hum-bucking coil in the RE18 gives an additional 25 dB of hum rejection. Hum pickup level is -125 dBm in a .001 gauss field.

The exclusive nonmetallic Electro-Voice Acoustalloy® diaphragm is virtually unaffected by extreme atmospheric conditions. A carefully designed steel outer case provides a high degree of mechanical protection and the Memraflex™ grille screen resists denting.

#### Architects' and Engineers' Specifications

The microphones shall be a shock-isolated Variable-D® supercardioid dynamic type with wide-range response uniform from 80-15,000 Hz. Proximity effect shall be 10 dB less at 100 Hz than comparable Single-D designs.

Output level shall be -56 dB (0 dB = 1 mW/10 dynes/cm<sup>2</sup>). EIA sensitivity rating shall be -

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150 dB. The impedance shall be a nominal 150 ohms. The diaphragm shall be nonmetallic Acoustalloy® and shall have a high-density Acoustifoam™ shield to prevent dust and iron particles from reaching the diaphragm, as well as to act as an effective pop filter.

A hum-bucking coil shall be provided in series with the microphone element. Hum pickup level shall be -125 dBm in a .001 gauss field. The hum-bucking coil shall decrease hum pickup by at least 25 dB.

The case shall be made of steel. The microphone shall have a maximum diameter of 41 mm (1.63 in.), with a 19 mm (0.75 in.) diameter shank and a maximum length of 178 mm (7.0 in.). Finish shall be fawn beige.

A stand clamp and a protective pouch shall be supplied. The Electro-Voice RE18 is specified.

### Uniform Limited Warranty

Electro-Voice products are guaranteed against malfunction due to defects in materials or workmanship for a specified period, as noted in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual, beginning with the date of original purchase. If such malfunction occurs during the specified period, the product will be repaired or replaced (at our option) without charge. The product will be returned to the customer prepaid.

**Exclusions and Limitations:** The Limited

Warranty does not apply to: (a) exterior finish or appearance; (b) certain specific items described in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual; (c) malfunction resulting from use or operation of the product other than as specified in the product data sheet or owner's manual; (d) malfunction resulting from misuse or abuse of the product; or (e) malfunction occurring at any time after repairs have been made to the product by anyone other than EVI Audio Service or any of its authorized service representatives. **Obtaining Warranty Service:** To obtain warranty service, a customer must deliver the product, prepaid, to EVI Audio Service or any of its authorized service representatives together with proof of purchase of the product in the form of a bill of sale or receipted invoice. A list of authorized service representatives is available from EVI Audio Service at 600 Cecil Street, Buchanan, MI 49107 (800/234-6831 or FAX 616/695-4743). **Incidental and Consequential Damages Excluded:** Product repair or replacement and return to the customer are the only remedies provided to the customer. Electro-Voice shall not be liable for any incidental or consequential damages including, without limitation, injury to persons or property or loss of use. Some states do not allow the exclusion or limitation of incidental or consequential damages so the

above limitation or exclusion may not apply to you. **Other Rights:** This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

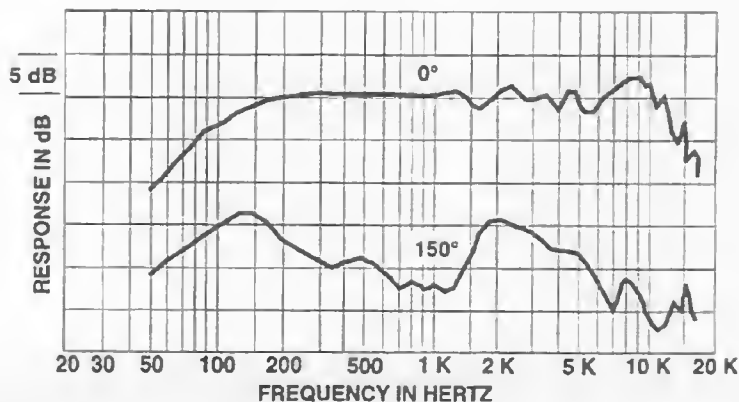
**Electro-Voice Wired Microphones** are guaranteed against malfunction from any cause for two (2) years from the date of original purchase. In addition, the Limited Warranty for the acoustic system contained in these microphones shall apply for the life of the product, defined as a period of ten (10) years from the date that the manufacture of the specific microphone has been discontinued. Any and all active electronics incorporated in these microphones are guaranteed against malfunction due to defects in materials or workmanship for a period of three (3) years from the date of original purchase. The Limited Warranty does not extend to cables, cable connectors, or switches. Additional details are included in the Uniform Limited Warranty statement.

For warranty repair, service information, or a listing of the repair facilities nearest you, contact the service repair department at: 616/695-6831 or 800/685-2606.

**For technical assistance,** contact Technical Support at 800/234-6831 or 616/695-6831, M-F, 8:00 a.m. to 5:00 p.m. Eastern Standard time.

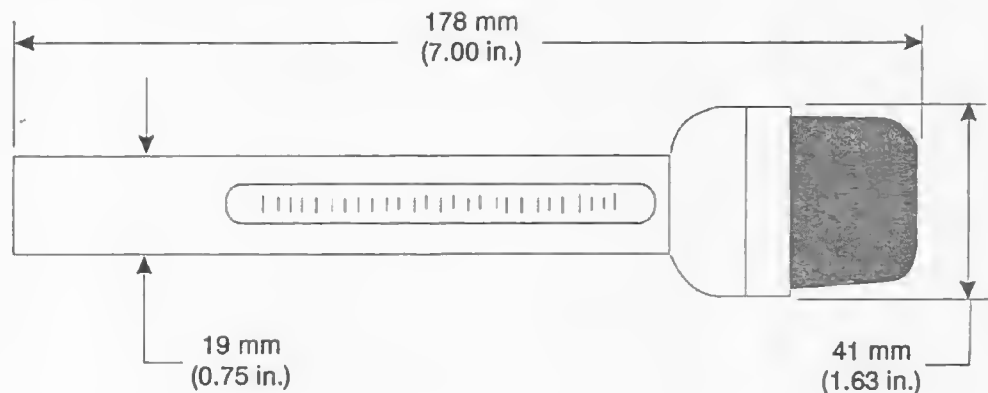
Specifications subject to change without notice.

Figure 1—Frequency Response



# RE 18 Variable-D® Dynamic Supercardioid Microphone

Figure 2—Dimensions



RE 18 Variable-D® Dynamic Supercardioid Microphone

Figure 3—Polar Response

5 dB per division

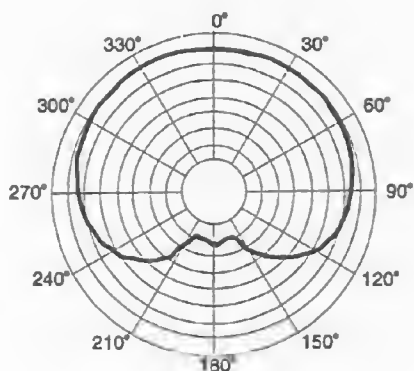
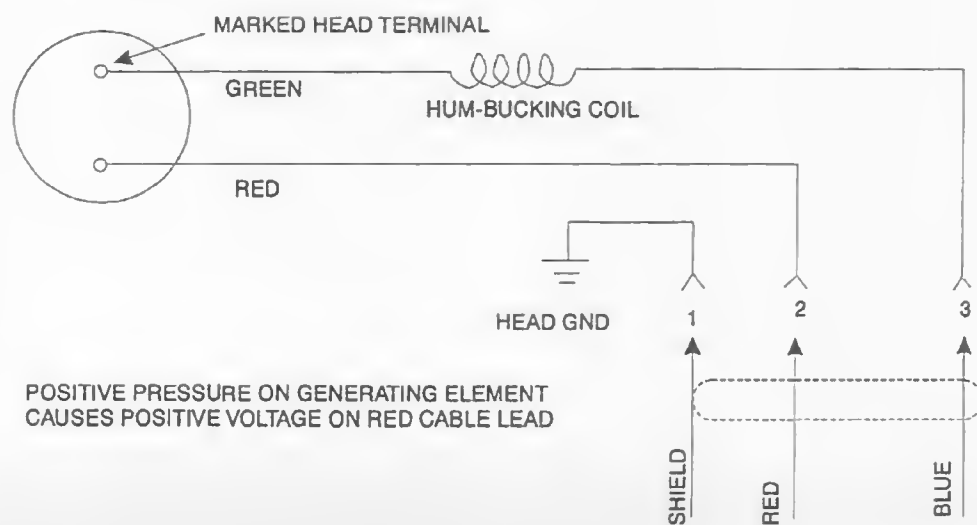


Figure 4—Wiring Diagram



**RE18 Variable-D® Dynamic Supercardioid Microphone****Specifications****Element:**

Dynamic

**Frequency Response:**

80-15,000 Hz

**Polar Pattern:**

Supercardioid

**Impedance, Low-Z (nominal):**

150 ohms

**Output Level (0 dB = 1 mW/10 dynes/cm<sup>2</sup>):**

-57 dB

**EIA Sensitivity Rating:**

-150 dB

**Hum Pickup Level (.001 gauss field):**

-125 dBm

**Diaphragm:**

Electro-Voice Acoustalloy®

**Case Material:**

Steel

**Dimensions:****Length:**

178 mm (7.0 in.)

**Max. Diameter:**

41 mm (1.63 in.)

**Shank Diameter:**

19 mm (0.75 in.)

**Finish:**

Fawn beige

**Net Weight:**

230 g (8 oz)

**Accessories Furnished:**

Stand adapter

Protective pouch

**Optional Accessories:**

313A shock mount

338 windscreen

340 security clamp

422 desk stand

423B desk stand

**Electro-Voice®**

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